```
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FILE LAST UPDATED: 16 Jan 2007  (20070116/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que  165
L51             STR

HO—Ak—O—Ak
 1   2   3   4

NODE ATTRIBUTES:
CONNECT IS E1  RC AT   4
DEFAULT MLEVEL IS ATOM
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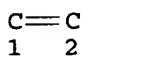
polyalkylene glycol with terminal hydroxy group protected

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L52 STR 2

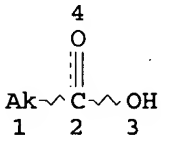


ethylene or propylene

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L53 STR 3



unsaturated acid

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 1
DEFAULT ECLEVEL IS LIMITED

2,623 polymers from structures 1 and 2 and 3

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L55 SCR 2043
L57 2623 SEA FILE=REGISTRY SSS FUL L51 AND L52 AND L53 AND L55
L59 1510 SEA FILE=HCAPLUS ABB=ON L57
L60 5138 SEA FILE=HCAPLUS ABB=ON GEL?(5A)ELECTROLYT?
L61 8 SEA FILE=HCAPLUS ABB=ON L59 AND L60
L63 28488 SEA FILE=HCAPLUS ABB=ON ?POLYMER?(5A)ELECTROLYT?
L64 15 SEA FILE=HCAPLUS ABB=ON L59 AND L63
L65 18 SEA FILE=HCAPLUS ABB=ON L61 OR L64

=> d 165 bib abs ind hitstr 1-18

L65 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1303219 HCAPLUS
DN 146:46773
TI Liquid cleaning compositions for dishwasher
IN Ishikawa, Naoyoshi; Yamazaki, Takashi
PA Diversey Ip International BV, Neth.
SO Jpn. Kokai Tokkyo Koho, 31pp.
CODEN: JKXXAF
DT Patent

LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006335908	A	20061214	JP 2005-163343	20050602
PRAI	JP 2005-163343		20050602		

AB The cleaning compns. contain (A) alkali metal hydroxides 1-50, (B) tripolyphosphoric acid alkali metal salts 0.1-40, (C) hypochlorous acid alkali metal salts 0.2-5 (as effective Cl), (D) water-soluble organic chelating agents 0.0001-0.2, and optionally, (E) **polymer electrolytes** 0.1-5%. The cleaning compns. show excellent re-deposition prevention, scale formation suppression, and stability when inevitable contamination of Fe compds. occurs. Thus, a water-based liquid cleaning composition containing KOH 13.5, Na tripolyphosphate 17.0, Na hypochlorite 3.0, and Na gluconate 0.01% had pH (25°, 0.2% solution) ≥11 (JIS Z 8802:1984), good Na hypochlorite stability after 1-mo storage at 38°, and min. coloration but no precipitation by by contamination of FeCl3 (3.5 ppm) for 1 mo. at 38°.

CC 46-6 (Surface Active Agents and Detergents)

ST alkali metal hydroxide dishwasher cleaning liq; tripolyphosphoric acid alkali metal salt dishwasher cleaning liq; org chelating agent dishwasher cleaning liq; hypochlorous acid alkali metal salt dishwasher cleaning liq; **polymer electrolyte** dishwasher cleaning liq

IT Detergents
(dishwashing, liquid; liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT **Polymer electrolytes**
(liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT Alkali metal hydroxides
RL: TEM (Technical or engineered material use); USES (Uses)
(liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT Acrylic polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(maleic acid copolymer sodium salt; liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT Chelating agents
(water-soluble organic; liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT 51981-21-6, Dissolvine GL 38
RL: TEM (Technical or engineered material use); USES (Uses)
(Dissolvine GL 38; liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT 220184-77-0, HIDS
RL: TEM (Technical or engineered material use); USES (Uses)
(HIDS; liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT 9003-04-7, Sodium polyacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(Primal LMW 45, Acusol 445N, Sokolan 30CL, Sokolan 25CL, Aron A 210; liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT 110-16-7D, Maleic acid, acrylic copolymer sodium salt 142-73-4, Iminodiacetic acid 526-95-4, D-Gluconic acid 527-07-1, Sodium gluconate 1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide, uses 7681-52-9, Sodium hypochlorite 7758-29-4, Sodium tripolyphosphate 13845-36-8, Potassium tripolyphosphate 26913-06-4D,

Poly[imino(1,2-ethanediyl)], carboxyl-containing derivs. 36445-84-8, Pailplac 1200 **105062-72-4**, Aqualic GL 246 170492-24-7, Trilon M 174127-40-3, Acusol 505N 916590-61-9
RL: TEM (Technical or engineered material use); USES (Uses)
(liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

IT **105062-72-4**, Aqualic GL 246
RL: TEM (Technical or engineered material use); USES (Uses)
(liquid cleaning compns. with good stability to Fe-based inevitable contaminants for dishwasher)

RN 105062-72-4 HCAPLUS

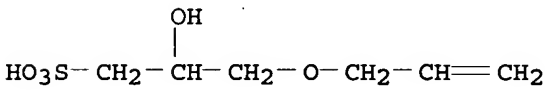
CN 2-Propenoic acid, polymer with 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 105062-71-3
CMF (C6 H12 O5 S . C3 H4 O2)x
CCI PMS

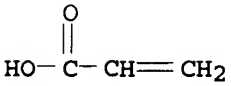
CM 2

CRN 94928-31-1
CMF C6 H12 O5 S



CM 3

CRN 79-10-7
CMF C3 H4 O2



L65 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:50834 HCAPLUS
DN 144:111347
TI Gelling agent for primary alkaline battery and the battery
IN Ohtani, Kazuya; Yamaguchi, Takeaki
PA Sanyo Chemical Industries, Ltd., Japan
SO PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006006471	A1	20060119	WO 2005-JP12503	20050706

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG,
NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

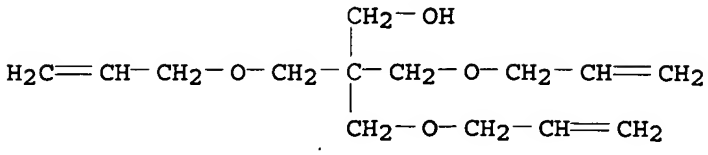
JP 2006049306 A 20060216 JP 2005-199532 20050708
PRAI JP 2004-201441 A 20040708

AB The gelling agent comprises a crosslinked polymer whose main constituent monomer unit is a (meth)acrylic acid (salt), and has a gel (GA) viscosity ratio (N1/N60) of 0.7-1.3 and a content of components soluble in a 37% aqueous solution of KOH of ≤ 30%; where the gel (GA) viscosity ratio (N1/N60) is determined by evenly mixing/agitating 100 parts weight of 37% aqueous solution of the KOH, 2 parts weight of the crosslinked polymer and 200 parts weight of Zn powder at 40° to produce a gel, measuring the viscosity (40°, N1) of the gel having been settled for 1 day and the viscosity (40°, N60) of gel (GA) having been settled for 60 days at the same temperature in accordance with JIS K7117-1:1999, and making calcn. from the viscosity measurements.

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
ST primary alk battery **gelling** agent crosslinked **polymer electrolyte** leakage
IT Battery **electrolytes**
Leak
Primary batteries
(**gelling** agents containing methacrylic acid based **polymers** for prevention **electrolyte** leakage in primary alkaline batteries)
IT 7440-66-6, Zinc, uses 9003-01-4, Polyacrylic acid **78746-93-7**, Acrylic acid-pentaerythritol triallyl ether copolymer 186341-19-5 **872679-86-2**
RL: DEV (Device component use); USES (Uses)
(gelling agents containing methacrylic acid based **polymers** for prevention **electrolyte** leakage in primary alkaline batteries)
IT **78746-93-7**, Acrylic acid-pentaerythritol triallyl ether copolymer **872679-86-2**
RL: DEV (Device component use); USES (Uses)
(gelling agents containing methacrylic acid based **polymers** for prevention **electrolyte** leakage in primary alkaline batteries)
RN 78746-93-7 HCAPLUS
CN 2-Propenoic acid, polymer with 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)

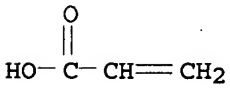
CM 1

CRN 1471-17-6
CMF C14 H24 O4



CM 2

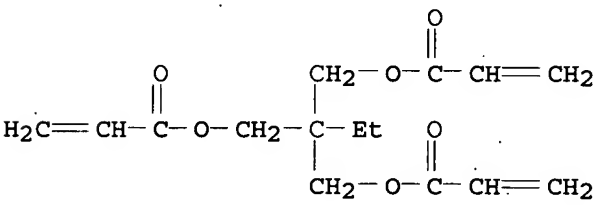
CRN 79-10-7
CMF C3 H4 O2



RN 872679-86-2 HCAPLUS
CN 2-Propenoic acid, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)

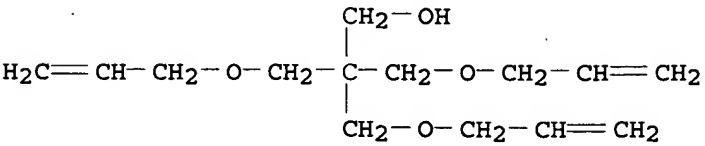
CM 1

CRN 15625-89-5
CMF C15 H20 O6



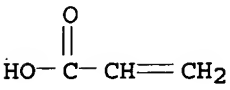
CM 2

CRN 1471-17-6
CMF C14 H24 O4



CM 3

CRN 79-10-7
CMF C3 H4 O2



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L65 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1099267 HCAPLUS
DN 143:389765
TI Polysiloxane-polyolefin composite **gel electrolytes** and lithium batteries thereof
IN Miyagawa, Shinji; Yamaguchi, Shuichiro; Yatabe, Satoru; Koyama, Noboru
PA Shirouma Science K. K., Japan; Fuji Heavy Industries Ltd.; Mitsui and Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005285377	A	20051013	JP 2004-93640	20040326
PRAI JP 2004-93640		20040326		

AB The electrolyte comprises (A) a 3-dimensionally crosslinked polymer network matrix in which a nonaq. solvent electrolyte solution is contained and (B) a non-crosslinked polymer containing (B1) terminal-protected ether-modified polysiloxanes and (B2) non-siloxane-type polymers in the polymer network matrix. Lithium batteries with the said electrolytes are also claimed. The electrolytes show easy penetration in porous separators high ion conductivity, and batteries with excellent charge-discharge characteristics are obtained.

IC ICM H01M010-40
ICS C08L083-12; C08L101-00; H01B001-06
CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38
ST polysiloxane polyolefin composite **gel** battery **electrolyte**; lithium battery polysiloxane polyolefin **gel electrolyte**
IT Polyoxyalkylenes, uses
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(acrylic, graft, lithium complexes, semi-interpenetrating polymer networks; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)
IT Lactones
RL: DEV (Device component use); USES (Uses)
(**electrolyte** solvents in **gels**; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)
IT Polysiloxanes, uses
RL: DEV (Device component use); USES (Uses)
(ether; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)
IT **Gels**
(**polymer electrolytes**; polysiloxane-polyolefin

semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT Battery **electrolytes**
Polymer electrolytes
(polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT Interpenetrating polymer networks
(semi-interpenetrating; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT 126-33-0, Sulfolane 512-56-1, Trimethyl phosphate 872-50-4, N-Methylpyrrolidone, uses
RL: DEV (Device component use); USES (Uses)
(**electrolyte** solvents in **gels**; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT 96-49-1, Ethylene carbonate 108-32-7, Propylene carbonate
RL: DEV (Device component use); USES (Uses)
(in **electrolyte gels**; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT 14283-07-9, Lithium tetrafluoroborate 132843-44-8, Lithium bis(pentafluoroethanesulfonyl)imide
RL: DEV (Device component use); USES (Uses)
(polymer complexes, semi-interpenetrating polymer networks; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT 7439-93-2D, Lithium, polymer complexes 9011-14-7D, Poly(methyl methacrylate), lithium complexes 24980-62-9D, Acrylonitrile-vinyl acetate copolymer, lithium complexes 25014-41-9D, Polyacrylonitrile, lithium complexes 25322-68-3D, Polyethylene oxide, lithium complexes
RL: DEV (Device component use); USES (Uses)
(semi-interpenetrating polymer networks; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

IT 94457-89-3DP, Polypropylene glycol diacrylate homopolymer, lithium complexes **177569-35-6DP**, lithium complexes 196521-53-6DP, lithium complexes
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(semi-interpenetrating polymer networks; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

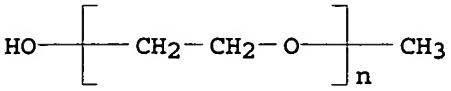
IT **177569-35-6DP**, lithium complexes
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(semi-interpenetrating polymer networks; polysiloxane-polyolefin semi-interpenetrating **polymer** networks **gel electrolytes** and lithium batteries thereof)

RN 177569-35-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

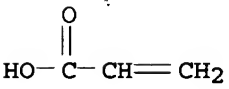


CM 2

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 3

CRN 79-10-7
CMF C3 H4 O2



CM 4

CRN 74-85-1
CMF C2 H4

L65 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:330299 HCAPLUS
DN 140:340424
TI Manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**
IN Iwase, Yoshiyuki; Nishijima, Koichi; Ogasawara, Hiroshi; Kutsuwa, Yoshikazu
PA Du Pont-Mitsui Polychemicals Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004123872	A	20040422	JP 2002-289016	20021001
PRAI	JP 2002-289016		20021001		

AB In the process, ethylene-unsatd. carboxylic acid copolymers are esterified with monohydroxy-terminated polyalkylene oxides and then reacted at

residual carboxylic acids with end-capping agents to afford the claimed polyolefins useful for gel-type polymer batteries or capacitors. Thus, acrylic acid-ethylene copolymer (OH/carboxyl molar ratio 2.0) was esterified with polyethylene glycol monomethyl ether and then with benzoic acid to exhibit residual carboxylic acid 1.90% and high solubility in ethylene carbonate/propylene carbonate solvent after 6-mo storage at room temperature

IC ICM C08G081-02
ICS H01B013-00; H01M010-40

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 52, 76

ST esterified endcapped residual carboxylic polyolefin electrolyte; durable **polymer electrolyte** residual acid minimized

IT Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, graft, lower alkyl esters; manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**)

IT Capacitors
(electrolytes for; manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**)

IT Battery electrolytes
Polymer electrolytes
(manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**)

IT 103-71-9, Phenyl isocyanate, reactions 111-26-2, n-Hexylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation agents; manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**)

IT **680624-10-6DP**, butylated **680972-65-0P**, Acrylic acid-ethylene-Uniox M 550 graft copolymer benzoate 680972-66-1P, Acrylic acid-ethylene-oxirane graft copolymer methyl ether benzoate 680972-67-2DP, Acrylic acid-ethylene-oxirane graft copolymer methyl ether sodium salt, butylated
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**)

IT **680624-10-6DP**, butylated **680972-65-0P**, Acrylic acid-ethylene-Uniox M 550 graft copolymer benzoate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of polyolefins containing less carboxylic acid residues for **polymer electrolytes**)

RN 680624-10-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethene and α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, sodium salt (9CI) (CA INDEX NAME)

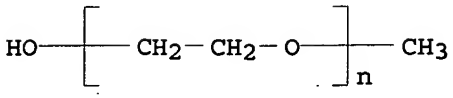
CM 1

CRN 680624-09-3
CMF (C3 H4 O2 . (C2 H4 O)n C H4 O . C2 H4)x
CCI PMS

CM 2

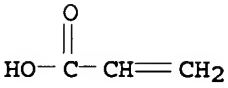
CRN 9004-74-4
CMF (C2 H4 O)n C H4 O

CCI PMS



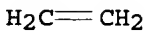
CM 3

CRN 79-10-7
CMF C3 H4 O2



CM 4

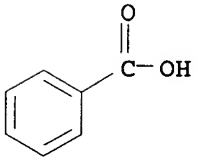
CRN 74-85-1
CMF C2 H4



RN 680972-65-0 HCAPLUS
CN 2-Propenoic acid, polymer with ethene and α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), benzoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 65-85-0
CMF C7 H6 O2

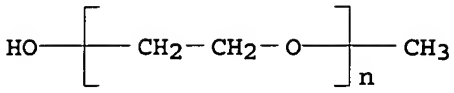


CM 2

CRN 680624-09-3
CMF (C3 H4 O2 . (C2 H4 O)n C H4 O . C2 H4)x
CCI PMS

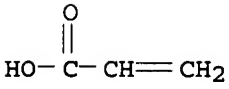
CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



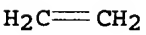
CM 4

CRN 79-10-7
CMF C3 H4 O2



CM 5

CRN 74-85-1
CMF C2 H4



L65 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:317760 HCAPLUS
DN 138:341090
TI **Polymer gel electrolyte** composition and its manufacture
IN Maruyama, Kunio; Miyagawa, Shinji; Yamaguchi, Shuichiro; Koyama, Noboru
PA Shirouma Science Co., Ltd., Japan; Fuji Heavy Industries Ltd.; Chemipro Kasei Ltd.; Mitsui and Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003123842	A	20030425	JP 2001-322319	20011019
	WO 2003036656	A1	20030501	WO 2002-JP10746	20021016
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	TW 593498	B	20040621	TW 2002-91124118	20021018
	US 2004197662	A1	20041007	US 2004-828468	20040419
PRAI	JP 2001-322319	A	20011019		

WO 2002-JP10746 A1 20021016

AB The electrolyte composition, useful for electrochem. devices, has a 3-dimensional crosslinked structure of a crosslinked polymer network matrix in a mixed nonaq. solvent **electrolyte** solution, and a non-crosslinked **polymer** contained in the matrix; where the non-crosslinked polymer contains an ethylene unit and/or an propylene unit, and an unsatd. carboxylic acid obtained by esterizing a carboxyl group with a polyalkylene glycol protected by a hydroxyl group at its one end. The electrolyte composition is manufactured by dissolving the non-crosslinked **polymer** in the mixed nonaq. solvent **electrolyte** solution, adding a crosslinkable monomer to the mixture; and polymerizing the monomer with the mixture

IC ICM H01M010-40
ICS C08G081-02; C08L023-26; C08L101-02; H01B001-06; H01G009-025; H01G009-032

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST battery **polymer gel electrolyte** compn manuf

IT Battery **electrolytes**
Polymer electrolytes
(compns. and manufacture of **polymer gel electrolytes** for electrochem. devices)

IT **518044-75-2P**, Acrylic acid-ethylene copolymer, ester with polyethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate **518044-77-4P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with polyethylene glycol diacrylate **518044-79-6P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with N-methylol methacrylamide **518044-81-0P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with 3-hydroxyethyl methacrylate **518044-82-1P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with glycidyl acrylate **518044-83-2P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 4,4'-diphenyl diisocyanate **518044-84-3P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with triphenyl methane triisocyanate **518044-86-5P**, Ethylene-mathacrylic acid-propylene copolymer, ester with ethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(compns. and manufacture of **polymer gel electrolytes** for electrochem. devices)

IT 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 111-46-6, Diethylene glycol, uses 616-38-6, Dimethyl carbonate 623-53-0, Methyl ethyl carbonate 14283-07-9, Lithium tetrafluoroborate 21324-40-3, Lithium hexafluorophosphate **518044-78-5**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 1,6-hexanediol dimethacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(compns. and manufacture of **polymer gel electrolytes** for electrochem. devices)

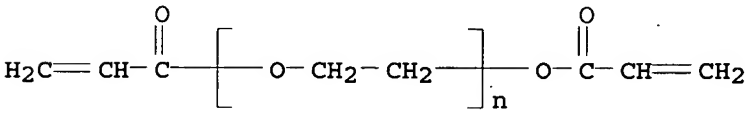
IT **518044-75-2P**, Acrylic acid-ethylene copolymer, ester with polyethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate **518044-77-4P**, Ethylene-methacrylic acid copolymer, ester with ethylene glycol monoethyl ether, polymer with polyethylene glycol diacrylate **518044-79-6P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with N-methylol methacrylamide **518044-81-0P**, Ethylene-methacrylic acid

copolymer, ester with ethylene glycol monoethyl ether, polymer with 3-hydroxyethyl methacrylate **518044-82-1P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with glycidyl acrylate **518044-83-2P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 4,4'-diphenyl diisocyanate **518044-84-3P**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with triphenyl methane triisocyanate **518044-86-5P**, Ethylene-mathacrylic acid-propylene copolymer, ester with ethylene glycol monomethyl ether, polymer with polyethylene glycol diacrylate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(compns. and manufacture of **polymer gel electrolytes** for electrochem. devices)

RN 518044-75-2 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS

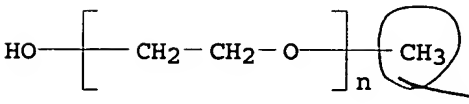


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



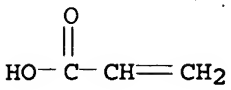
polyalkylene glycol with protected hydroxy

CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 5

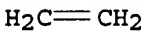
CRN 79-10-7
CMF C3 H4 O2



unsaturated acid

CM 6

CRN 74-85-1
CMF C2 H4

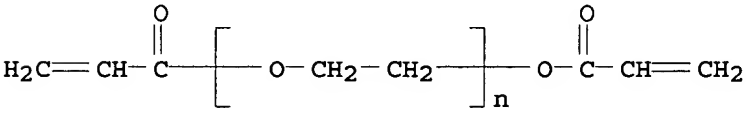


ethylene

RN 518044-77-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS

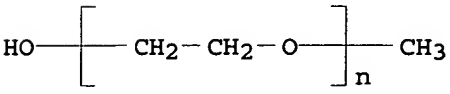


CM 2

CRN 518044-76-3
CMF (C4 H6 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



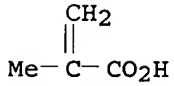
CM 4

CRN 25053-53-6

CMF (C4 H6 O2 . C2 H4)x
CCI PMS

CM 5

CRN 79-41-4
CMF C4 H6 O2



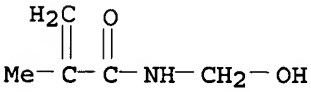
CM 6

CRN 74-85-1
CMF C2 H4

RN 518044-79-6 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with N-(hydroxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 923-02-4
CMF C5 H9 N O2

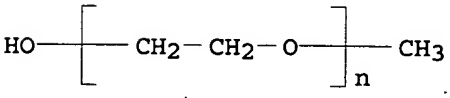


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

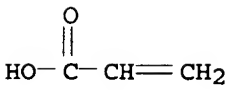


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

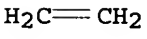
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

CRN 74-85-1
CMF C2 H4



RN 518044-81-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

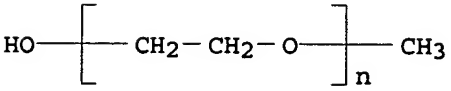
CRN 868-77-9
CMF C6 H10 O3

CM 2

CRN 518044-76-3
CMF (C4 H6 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

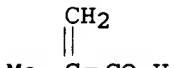


CM 4

CRN 25053-53-6
CMF (C4 H6 O2 . C2 H4)x
CCI PMS

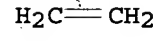
CM 5

CRN 79-41-4
CMF C4 H6 O2



CM 6

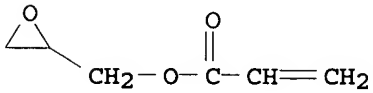
CRN 74-85-1
CMF C2 H4



RN 518044-82-1 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with oxiranylmethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 106-90-1
CMF C6 H8 O3

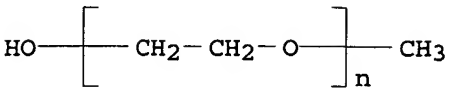


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

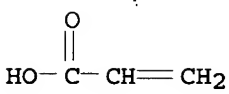


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

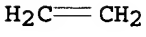
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

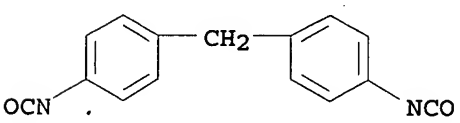
CRN 74-85-1
CMF C2 H4



RN 518044-83-2 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 101-68-8
CMF C15 H10 N2 O2



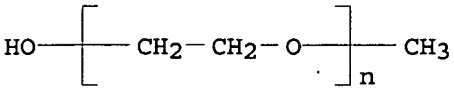
CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4

CMF (C2 H4 O)n C H4 O
CCI PMS

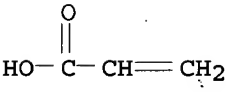


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

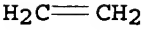
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

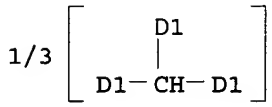
CRN 74-85-1
CMF C2 H4



RN 518044-84-3 HCAPLUS
CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with 1,1',1''-methylidynetris[isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 25656-78-4
CMF C22 H13 N3 O3
CCI IDS



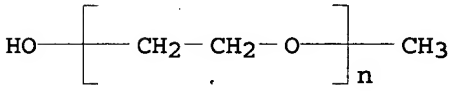
D1—NCO

CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

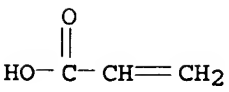


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 5

CRN 79-10-7
CMF C3 H4 O2



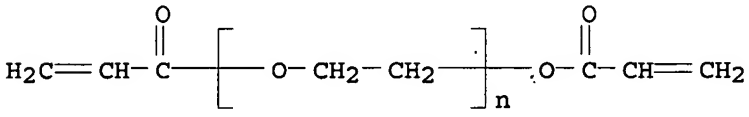
CM 6

CRN 74-85-1
CMF C2 H4

RN 518044-86-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethene and propene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS

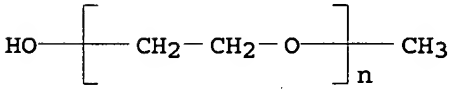


CM 2

CRN 518044-85-4
CMF (C4 H6 O2 . C3 H6 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



CM 4

CRN 28433-68-3
CMF (C4 H6 O2 . C3 H6 . C2 H4)x
CCI PMS

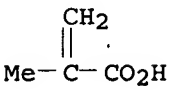
CM 5

CRN 115-07-1
CMF C3 H6

CM 6

CRN 79-41-4

CMF C4 H6 O2



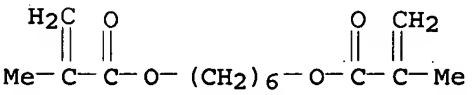
CM 7

CRN 74-85-1
CMF C2 H4

IT **518044-78-5**, Acrylic acid-ethylene copolymer, ester with ethylene glycol monomethyl ether, polymer with 1,6-hexanediol dimethacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(compns. and manufacture of **polymer gel electrolytes** for electrochem. devices)
RN 518044-78-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,6-hexanediyl ester, polymer with ethene graft polymer with 2-propenoic acid ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 6606-59-3
CMF C14 H22 O4

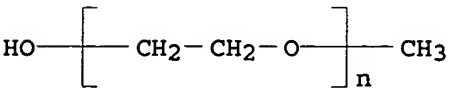


CM 2

CRN 177569-35-6
CMF (C3 H4 O2 . C2 H4)x . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

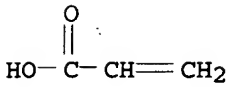


CM 4

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

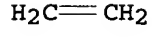
CM 5

CRN 79-10-7
CMF C3 H4 O2



CM 6

CRN 74-85-1
CMF C2 H4



L65 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:154757 HCAPLUS
DN 138:190723
TI Gelling agent for alkaline battery, and the battery
IN Sumiya, Takashi; Yamaguchi, Takeaki
PA Sanyo Chemical Industries, Ltd., Japan
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003017399	A1	20030227	WO 2002-JP7639	20020726
	W: CN, KR, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	JP 2003123763	A	20030425	JP 2002-194060	20020703
	EP 1427040	A1	20040609	EP 2002-755671	20020726
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
	CN 1539174	A	20041020	CN 2002-815383	20020726
	US 2004170900	A1	20040902	US 2004-486030	20040206
PRAI	JP 2001-241784	A	20010809		
	JP 2002-194060	A	20020703		
	WO 2002-JP7639	W	20020726		

AB The gelling agent comprises cross-linked polymer particles, containing (meth)acrylic acid and/or its alkali metal salt as primary monomer unit and having average particle diameter 0.1-2,000 μm; and an ultrafine particulate metal oxide, having average particle diameter 1-100 nm. The battery uses the **polymer** as an alkaline **electrolyte** **gelling** agent for an anode, and the mass of the metal oxide is 0.001-5 % of the alkaline electrolyte solution The battery has good shock

resistance, discharge characteristic, reduced production time, and does not contain harmful substances to a human body.

IC ICM H01M004-62
ICS H01M004-06; H01M006-22

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

ST alk battery **electrolyte** crosslinked **polymer** metal oxide **gelling** agent

IT Primary batteries
(gelling agents containing crosslinked polymers and ultrafine metal oxides for primary alkaline battery electrolytes)

IT 1310-58-3, Potassium hydroxide, uses 1314-13-2, Zinc oxide, uses 7440-66-6, Zinc, uses
RL: DEV (Device component use); USES (Uses)
(**electrolyte**; **gelling** agents containing crosslinked **polymers** and ultrafine metal oxides for primary alkaline battery electrolytes)

IT 1312-43-2, Indium oxide (In2O3) 13463-67-7, P-25, uses **78746-93-7** 422285-21-0, Junlon PW-50
RL: DEV (Device component use); USES (Uses)
(gelling agents containing crosslinked polymers and ultrafine metal oxides for primary alkaline battery electrolytes)

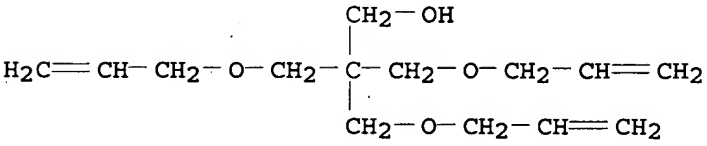
IT **78746-93-7**
RL: DEV (Device component use); USES (Uses)
(gelling agents containing crosslinked polymers and ultrafine metal oxides for primary alkaline battery electrolytes)

RN 78746-93-7 HCAPLUS

CN 2-Propenoic acid, polymer with 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)

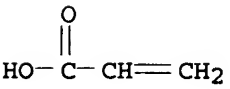
CM 1

CRN 1471-17-6
CMF C14 H24 O4



CM 2

CRN 79-10-7
CMF C3 H4 O2



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L65 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:315264 HCAPLUS
DN 136:343316

TI **Gel**-type **polymer electrolyte** that can be molded to a self-supported film for lithium batteries

IN Oyama, Noboru; Fujimoto, Yuki; Iwase, Yoshiyuki; Nishijima, Kouichi

PA Du Pont-Mitsui Polychemicals Co., Ltd., Japan

SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002033765	A2	20020425	WO 2001-JP9138	20011018
	WO 2002033765	A3	20031002		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2426129	A1	20020425	CA 2001-2426129	20011018
	JP 2002198095	A	20020712	JP 2001-320319	20011018
	EP 1368849	A2	20031210	EP 2001-976730	20011018
	EP 1368849	B1	20060405		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	CN 1555589	A	20041215	CN 2001-820726	20011018
	US 2006204854	A1	20060914	US 2004-399377	20040809
PRAI	JP 2000-318169	A	20001018		
	WO 2001-JP9138	W	20011018		

AB In a **gel**-type **polymer electrolyte**, the **polymer** comprises (a) an ethylene-unsatd. carboxylic acid copolymer or a derivative thereof and (b) a polyalkylene oxide having a hydroxyl group at one terminal thereof or a derivative thereof, which are bonded together by an ester bond. The **gel**-type **polymer electrolyte** has a high ionic conductivity, and makes it possible to provide a cell which has excellent charge/discharge characteristics at low temps. as well as at high temps.

IC ICM H01M

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38, 76

ST lithium battery **gel** type **polymer electrolyte**

IT Battery **electrolytes**
Capacitors
Ionic conductivity
Swelling, physical
Transesterification
(**gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(**gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT Secondary batteries
(lithium; **gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT Alcohols, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(polyhydric, crosslinking agent; **gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(unsatd., crosslinking agent; **gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT Fatty acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(unsatd., esters, crosslinking agent; **gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT 79-41-4, Methacrylic acid, reactions 18358-13-9, Methacrylate, reactions 25721-76-0, Polyethylene glycol dimethacrylate 26403-72-5, Polyethylene glycol diglycidyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking agent; **gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT 96-48-0, γ-Butyrolactone 96-49-1, Ethylene carbonate 105-58-8, Diethyl carbonate 108-32-7, Propylene carbonate 110-71-4 616-38-6, Dimethyl carbonate 872-50-4, n-Methylpyrrolidone, uses 14283-07-9, Lithium tetrafluoroborate 21324-40-3, Lithium hexafluorophosphate 35895-69-3, Tetraethylammonium trifluoromethanesulfonate
RL: DEV (Device component use); USES (Uses)
(**gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT 9004-74-4DP, Polyethylene glycol monomethyl ether, reaction product of acrylic acid-ethylene **copolymer** 172588-43-1DP, Ethylene glycol-propylene glycol mono-2-ethylhexyl ether block copolymer, reaction products with acrylic acid-ethylene **copolymer** **177569-35-6DP**, reaction product polyethylene glycol monomethyl ether **177569-35-6DP**, reaction products with acrylic acid-ethylene **copolymer** 196521-53-6DP, reaction products with acrylic acid-ethylene **copolymer**
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(**gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

IT 104-15-4, p-Toluenesulfonic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(**gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

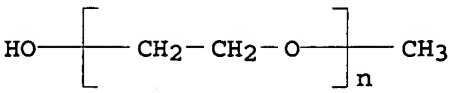
IT **177569-35-6DP**, reaction product polyethylene glycol monomethyl ether
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(**gel**-type **polymer electrolyte** that can be molded to self-supported film for lithium batteries)

RN 177569-35-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethene, ester with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



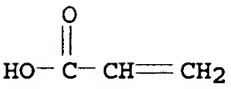
alkylene glycol

CM 2

CRN 9010-77-9
CMF (C3 H4 O2 . C2 H4)x
CCI PMS

CM 3

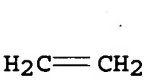
CRN 79-10-7
CMF C3 H4 O2



unsaturated acid

CM 4

CRN 74-85-1
CMF C2 H4



ethylene

L65 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:315005 HCAPLUS
DN 136:341174
TI Manufacture of hydrogel-forming polymers for hygienic articles
IN Frenz, Volker; Herfert, Norbert; Weismantel, Matthias; Riegel, Ulrich; Engelhardt, Friedrich; Funk, Ruediger
PA Basf Aktiengesellschaft, Germany
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002032975	A1	20020425	WO 2001-EP12030	20011017

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002012325 A5 20020429 AU 2002-12325 20011017
PRAI DE 2000-10051640 A 20001018
WO 2001-EP12030 W 20011017

AB A hydrogel-forming polymer with improved **gel** strength and increased **electrolyte** tolerance, useful in diapers, tampons, sanitary napkins, etc., comprises a polymer matrix consisting of 79.9-99.9% of ≥1 crosslinked monoethylenically unsatd. monomer A containing ≥1 acid group in partially neutralized form, 0-20% of ≥1 monoethylenically unsatd. comonomer B which is different from the monomer A, and 0.1-2% of monomers C (the percentages based on A + B + C), the monomers C being ethylenically unsatd. several times. The polymer matrix also consists of 0.3-50% (based on the total weight of A + B + C) of ≥1 hydrophilic polymer P distributed in the matrix. The polymer P comprises 0.3-50% (based on the total weight of A + B + C) of ≥1 homo- or copolymer of N-vinylpyrrolidone as component D containing ≥20% (based on the total weight of D) of N-vinylpyrrolidone incorporated by polymerization, and, optionally, 0-49.7% (based on the total weight of A + B + C) of ≥1 hydrophilic polymer substance E which is different from the component D. For example, radical polymerization of acrylic acid with pentaerythritol triallyl ether in the presence of polyvinylpyrrolidone followed by neutralization (aqueous NaOH), granulation, drying, spraying the granules with ethylene glycol diglycidyl ether and heating for 60 min at 140° gave a title hydrogel having centrifuge retention capacity 33.8 g/g, absorbency under load 24.7 g/g, saline flow conductivity 41 + 10-7 cm3 s/g, and reabsorbing capacity factor 92.

IC ICM C08F271-02
ICS C08F220-04; A61L015-60

CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38, 63

ST hydrogel forming acrylic acid vinylpyrrolidone graft copolymer manuf; superabsorbent acrylic acid vinylpyrrolidone graft copolymer manuf; pentaerythritol triallyl ether sodium acrylate vinylpyrrolidone graft copolymer superabsorbent

IT Medical goods
(absorbents; manufacture of hydrogel-forming polymers for hygienic articles)

IT Medical goods
(hygienic materials; manufacture of hydrogel-forming polymers for)

IT Hydrogels
(manufacture of hydrogel-forming polymers for hygienic articles)

IT Absorbents
(medical; manufacture of hydrogel-forming polymers for hygienic articles)

IT 497-25-6, 2-Oxazolidinone 2224-15-9, Ethylene glycol diglycidyl ether
RL: NUU (Other use, unclassified); USES (Uses)
(crosslinking agent; manufacture of hydrogel-forming polymers for hygienic articles)

IT 416841-33-3P, Allyl methacrylate-Sodium acrylate-N-Vinyl-2-pyrrolidone graft copolymer 416841-34-4P, Allyl methacrylate-Sodium acrylate-Vinyl acetate-N-Vinyl-2-pyrrolidone graft copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of hydrogel-forming polymers for hygienic articles)

IT **416841-32-2DP**, Acrylic acid-Pentaerythritol triallyl ether-N-Vinyl-2-pyrrolidone graft copolymer, sodium salts 416841-35-5DP, Acrylic acid-Tetraallyloxyethane-N-Vinyl-2-pyrrolidone graft copolymer, sodium salts 416841-36-6P, 2-(Dimethylamino)ethyl methacrylate-Polyethylene glycol diacrylate-Sodium acrylate-N-Vinyl-2-pyrrolidone graft copolymer 416841-37-7P, Acrylic acid-Sodium acrylate-N-Vinyl-2-pyrrolidone-SR 9035 graft copolymer 416841-38-8P, Sodium acrylate-SR 9035-Styrene-N-Vinyl-2-pyrrolidone graft copolymer 416841-39-9P,

2-(Dimethylamino)ethyl methacrylate-Polyethylene glycol diacrylate-Sodium acrylate-Styrene-N-Vinyl-2-pyrrolidone graft copolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surface-crosslinked; manufacture of hydrogel-forming polymers for hygienic articles)

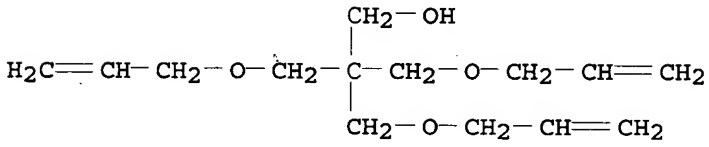
IT **416841-32-2DP**, Acrylic acid-Pentaerythritol triallyl ether-N-Vinyl-2-pyrrolidone graft copolymer, sodium salts
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surface-crosslinked; manufacture of hydrogel-forming polymers for hygienic articles)

RN 416841-32-2 HCAPLUS

CN 2-Propenoic acid, polymer with 1-ethenyl-2-pyrrolidinone and 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol, graft (9CI) (CA INDEX NAME)

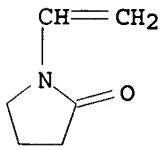
CM 1

CRN 1471-17-6
CMF C14 H24 O4



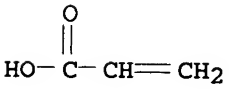
CM 2

CRN 88-12-0
CMF C6 H9 N O



CM 3

CRN 79-10-7
CMF C3 H4 O2



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L65 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:488647 HCAPLUS
DN 135:77333
TI **Polymer** and macromolecular solid **electrolyte** containing the same
IN Aoki, Minoru; Aizawa, Ryuji; Ito, Shoji; Pan, Jinxing
PA Nippon Shokubai Co., Ltd., Japan
SO Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1113035	A2	20010704	EP 2000-311618	20001222
EP 1113035	A3	20020417		
EP 1113035	B1	20040428		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRAI JP 1999-374637 A 19991228

AB This invention is to provide a macromol. solid electrolyte exhibiting high ion conductivity even at low temps. and a polymer used therefor. This invention relates to a polymer formed of the structural units [R[(X+Y-)Zp]O]n: wherein R represents a linear or branched alkylene residue of 1 to 4 carbon atoms; X- represents a deprotonated residue of an acid; Y+ represents a cation of a nitrogen-containing compound; z represents a residue of a monoethylenically unsatd. compound; m represents a number of average addition mols of a branched chain bound to the structural unit, -(RO)-, forming a main chain and is in the range of 2 to 20; n is in the range of 3 to 500; and p is in the range of 0 to 2, and macromol. solid **electrolyte** comprising the **polymer** as an essential component. A solid electrolyte was prepared from an acrylic acid-maleic anhydride-monomethoxypolyethylene glycol graft copolymer salt with N,N-di-Et imidazolium bromide and lithium bis(trifluoromethylsulfonyl)amide.

IC ICM C08G065-00
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 52
ST polyoxyalkylene graft **polymer** solid **polymer electrolyte**
IT **Polymer electrolytes**
(**polymer** and macromol. solid **electrolyte** containing the same)
IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polymer** and macromol. solid **electrolyte** containing the same)
IT **229009-81-8P** 347881-99-6P 347882-01-3P 347882-03-5P 347882-05-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**polymer** and macromol. solid **electrolyte** containing the same)
IT **347882-07-9P 347882-09-1P 347882-11-5P** 347882-13-7P 347882-15-9P 347882-17-1P 347882-22-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polymer** and macromol. solid **electrolyte** containing the

same)

IT 90076-65-6, Lithium bis(trifluoromethylsulfonyl)amide
RL: TEM (Technical or engineered material use); USES (Uses)
(**polymer** and macromol. solid **electrolyte** containing the same)

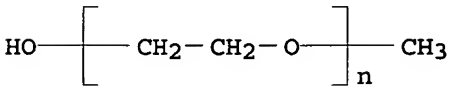
IT **229009-81-8P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**polymer** and macromol. solid **electrolyte** containing the same)

RN 229009-81-8 HCAPLUS

CN 2-Propenoic acid, polymer with 2,5-furandione and α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

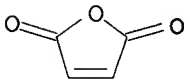
CM 1

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



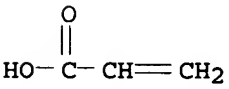
CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 79-10-7
CMF C3 H4 O2



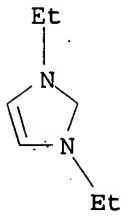
IT **347882-07-9P 347882-09-1P 347882-11-5P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polymer** and macromol. solid **electrolyte** containing the same)

RN 347882-07-9 HCAPLUS

CN 1H-Imidazolium, 1,3-diethyl-, bromide, compd. with 2,5-furandione graft polymer with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 54304-66-4
CMF C7 H13 N2 . Br



● Br^-

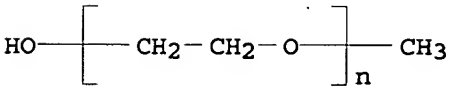
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 229009-81-8
CMF (C4 H2 O3 . C3 H4 O2 . (C2 H4 O)n C H4 O)x
CCI PMS

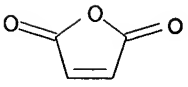
CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



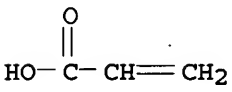
CM 4

CRN 108-31-6
CMF C4 H2 O3



CM 5

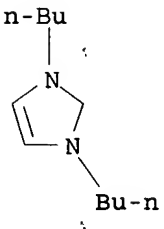
CRN 79-10-7
CMF C3 H4 O2



RN 347882-09-1 HCAPLUS
CN 1H-Imidazolium, 1,3-dibutyl-, bromide, compd. with 2,5-furandione graft polymer with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 87266-38-4
CMF C11 H21 N2 . Br



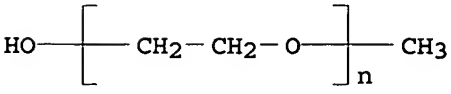
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

CM 2

CRN 229009-81-8
CMF (C4 H2 O3 . C3 H4 O2 . (C2 H4 O)n C H4 O)x
CCI PMS

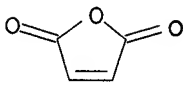
CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



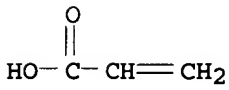
CM 4

CRN 108-31-6
CMF C4 H2 O3



CM 5

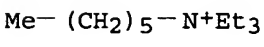
CRN 79-10-7
CMF C3 H4 O2



RN 347882-11-5 HCAPLUS
CN 1-Hexanaminium, N,N,N-triethyl-, bromide, compd: with 2,5-furandione graft polymer with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 13028-71-2
CMF C12 H28 N . Br

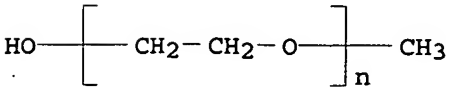


CM 2

CRN 229009-81-8
CMF (C4 H2 O3 . C3 H4 O2 . (C2 H4 O)n C H4 O)x
CCI PMS

CM 3

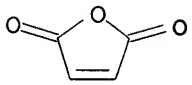
CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



CM 4

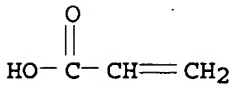
CRN 108-31-6

CMF C4 H2 O3



CM 5

CRN 79-10-7
CMF C3 H4 O2



L65 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:592962 HCAPLUS
DN 133:180357
TI Gelling agents for alkaline batteries and the batteries
IN Sumiya, Takashi; Koike, Masami; Zenitani, Yukio
PA Sanyo Chemical Industries Ltd., Japan
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

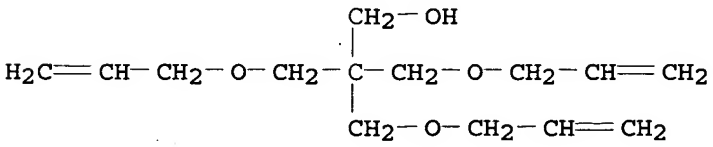
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000049670	A1	20000824	WO 2000-JP878	20000216
	W: CN, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2000306589	A	20001102	JP 1999-366127	19991224
	JP 3323468	B2	20020909		
	EP 1162676	A1	20011212	EP 2000-903989	20000216
	EP 1162676	B1	20040818		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 6667133	B1	20031223	US 2001-913102	20010809
PRAI	JP 1999-38750	A	19990217		
	JP 1999-366127	A	19991224		
	WO 2000-JP878	W	20000216		

AB The water swellable gelling agents are crosslinked polymers, prepared by aqueous solution polymerization or reversed phase emulsion polymerization of (meth)acrylic acid and/or its alkali metal salt; where the gelling agent contain ≥50% particles having diameter 300-4000 μm after swollen in 40% aqueous KOH, and a 40% aqueous KOH solution containing 3% of the gelling agent has a spinning ability 0-20 mm. The batteries use Zn powder **gelled** by an alk **electrolyte** containing the **gelling** agent for anodes.
IC ICM H01M004-06
ICS H01M004-24; H01M004-62

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
ST battery zinc anode crosslinked polyacrylate gelling agent
IT Battery anodes
(compns. of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)
IT 9062-04-8, Carbopol 941 **78746-93-7**, Acrylic acid-pentaerythritol triallyl ether copolymer
RL: DEV (Device component use); USES (Uses)
(compns. of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)
IT 7440-66-6, Zinc, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(compns. of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)
IT **78746-93-7D**, Acrylic acid-pentaerythritol triallyl ether copolymer, sodium salt
RL: DEV (Device component use); USES (Uses)
(in surface crosslinking of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)
IT 2224-15-9, Ethylene glycol diglycidyl ether
RL: MOA (Modifier or additive use); USES (Uses)
(in surface crosslinking of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)
IT **78746-93-7**, Acrylic acid-pentaerythritol triallyl ether copolymer
RL: DEV (Device component use); USES (Uses)
(compns. of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)
RN 78746-93-7 HCAPLUS
CN 2-Propenoic acid, polymer with 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)

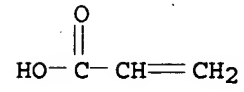
CM 1

CRN 1471-17-6
CMF C14 H24 O4



CM 2

CRN 79-10-7
CMF C3 H4 O2



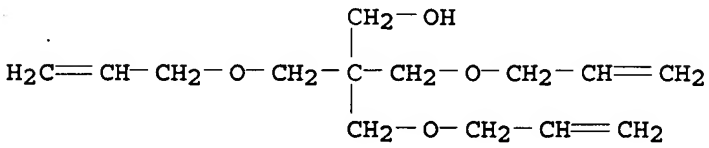
IT **78746-93-7D**, Acrylic acid-pentaerythritol triallyl ether copolymer, sodium salt
RL: DEV (Device component use); USES (Uses)

(in surface crosslinking of water swellable crosslinked (meth)acrylic acid polymer gelling agents for zinc anodes in alkaline batteries)

RN 78746-93-7 HCAPLUS
CN 2-Propenoic acid, polymer with 3-(2-propenyloxy)-2,2-bis[(2-propenyloxy)methyl]-1-propanol (9CI) (CA INDEX NAME)

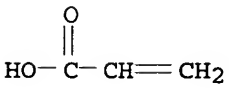
CM 1

CRN 1471-17-6
CMF C14 H24 O4



CM 2

CRN 79-10-7
CMF C3 H4 O2



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L65 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:758162 HCAPLUS
DN 132:79210
TI Stability of Dispersions in the Presence of Graft Copolymer (II) Adsorption of Graft Copolymers on Titanium Dioxide and the Stability and Rheology of the Resulting Dispersions
AU Liang, W.; Bognolo, G.; Tadros, Th. F.
CS Zeneca Agrochemicals, Jealott's Hill Research Station, Bracknell Berkshire, RG12 6EY, UK
SO Langmuir (2000), 16(3), 1306-1310
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB The adsorption of two graft copolymers (Atlox 4913 and Hypermer CG-6 consisting of poly(Me methacrylate) methacrylic acid backbone and polyethylene oxide side chains) on titanium dioxide dispersions were investigated. Hypermer CG-6 contains more polymethacrylic acid groups in the backbone. The influence of **copolymer** structure, temperature, and **electrolyte** concentration on the stability of titanium dioxide dispersions was studied using rheol. measurements and microscopy observation. The adsorbed layer thickness of copolymer on the titanium dioxide particle surface at saturation adsorption was evaluated by measuring the rheol. properties of the concentrated dispersions using shear stress-shear rate and oscillatory measurements. The results showed that the adsorption behavior of copolymer on TiO2 is different from polystyrene latex which

has a hydrophobic surface, especially for Atlox 4913. The dispersions showed weak flocculation when using Atlox 4913 but stable dispersions for Hypermer CG-6. For the stable dispersions using Hypermer CG-6, the adsorbed layer thickness decreased with increase in the volume fraction of the dispersion. Increasing temperature showed little effect on the viscoelastic properties. However, with the increase of electrolyte concentration, moduli increased sharply indicating flocculation of the dispersions.

CC 37-5 (Plastics Manufacture and Processing)

ST methacrylate graft copolymer adsorption titania dispersion; methacrylic acid copolymer adsorption titania dispersion; polyoxyethylene graft copolymer adsorption titania dispersion

IT Adsorption
Polymer chains
Viscoelasticity
(adsorption of methacrylate graft copolymers on titanium dioxide and stability and rheol. of resulting dispersions)

IT 13463-67-7, Titania, properties 110463-16-6, Hypermer CG-6
119724-54-8, Atlox 4913
RL: PRP (Properties)
(adsorption of methacrylate graft copolymers on titanium dioxide and stability and rheol. of resulting dispersions)

IT 7757-82-6, Sodium sulfate, uses
RL: MOA (Modifier or additive use); USES (Uses)
(adsorption of methacrylate graft copolymers on titanium dioxide and stability and rheol. of resulting dispersions in presence of)

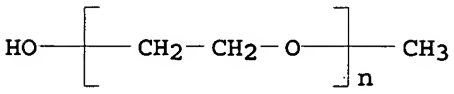
IT **119724-54-8**, Atlox 4913
RL: PRP (Properties)
(adsorption of methacrylate graft copolymers on titanium dioxide and stability and rheol. of resulting dispersions)

RN 119724-54-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

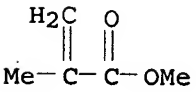
CM 1

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



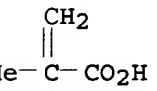
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



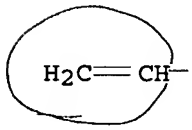
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L65 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1999:339611 HCAPLUS
DN 131:200239
TI Synthesis and characterization of comblike polymer with glass transition near room temperature - Polyethylene glycol methyl ether of molecular weight 550 as side chain
AU Qi, Li; Lin, Yunqing; Wang, Fosong
CS Changchun Inst. of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China
SO Huaxue Yanjiu Yu Yingyong (1999), 11(2), 155-159
CODEN: HYYIFM; ISSN: 1004-1656
PB Huaxue Yanjiu Yu Yingyong Bianjibu
DT Journal
LA Chinese
AB A comblike polymer was synthesized by the esterification of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether of mol. weight 550 (as the side chain), and was characterized by IR, elemental anal., DSC, and TG. The comblike polymer was studied for dynamic mech. properties and the ionic conductivity of the comblike polymer-Li salt complexes was studied. The refined product is amorphous, its glass transition point is 30.68°, and decomposition temperature is 120°. The α transition temperature is 28°, and β transition temperature is -47.7°. The relationship between the conductivity and temperature is in accord with Vogel-Tammann-Fulcher (VTF) equation. The maximum ambient conductivity is 4.2
x 10-5 S cm- 1.
CC 35-8 (Chemistry of Synthetic High Polymers)
ST styrene maleic anhydride copolymer polyoxyethylene ester; lithium boron fluoride comblike polymer complex
IT Mechanical properties
(dynamic; of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether)
IT **Polymer electrolytes**
(ethylene oxide-maleic anhydride-styrene comblike polymer complex with lithium boron tetrafluoride)
IT Glass transition temperature
(of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether)
IT Ionic conductivity
(property of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether complex with lithium boron tetrafluoride)
IT 77-78-1, Dimethyl sulfate 104-15-4, uses
RL: CAT (Catalyst use); USES (Uses)
(catalysts; preparation and characterization of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene

glycol monomethyl ether)
IT 109800-41-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(comb; preparation and characterization of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether)
IT 109800-41-1DP, lithium complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(ionic conductivity of)
IT 7439-93-2D, Lithium, ethylene oxide-maleic anhydride-styrene comblike polymer complex, uses
RL: MOA (Modifier or additive use); USES (Uses)
(ionic conductivity of polyethylene glycol monomethyl ether ester with styrene-maleic anhydride copolymer)
IT **241823-39-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether)
IT **241823-39-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of comblike polymer of styrene-maleic anhydride copolymer (as the backbone) with polyethylene glycol monomethyl ether)
RN 241823-39-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-methyl-ω-hydroxy-, (2Z)-2-butenedioate, polymer with ethenylbenzene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 100-42-5
CMF C8 H8

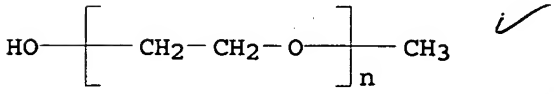


CM 2

CRN 135374-83-3
CMF C4 H4 O4 . x (C2 H4 O)n C H4 O

CM 3

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS

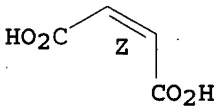


CM 4

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



unsaturated acid

L65 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:378448 HCAPLUS
DN 125:116436
TI High rate vacuum deposition of **polymer electrolytes**
AU Affinito, J. D.; Gross, M. E.; Coronado, C. A.; Dunham, G. C.; Martin, P. M.
CS Mater. Sci. Dep., Pacific Northwest Lab., Richland, WA, 99352, USA
SO Journal of Vacuum Science & Technology, A: Vacuum, Surfaces, and Films (1996), 14(3, Pt. 1), 733-738t
CODEN: JVTAD6; ISSN: 0734-2101
PB American Institute of Physics
DT Journal
LA English
AB Two new, high rate, vacuum processes have been developed for the deposition of **polymer electrolyte** layers on wide web substrates. One method involves the vacuum extrusion of monomer salt solns. followed by e-beam or UV curing. The second method involves the vacuum flash evaporation of the monomer salt solution followed by e-beam or UV curing. Each method is compatible with simultaneous, in-line, deposition by conventional processes like sputtering or evaporation in a wide web system. The **polymer electrolytes** were prepared from poly(ethylene glycol) diacrylate, poly(ethylene glycol) monomethyl ether and acrylic acid with a com. photoinitiator Darocure 4265. The salts used were LiCF3SO3 and LiPF6. Optically clear **polymer electrolyte** layers may be deposited at line speeds in excess of 100 m min-1 with these new techniques. Ionic conductivity measurements were presented for vacuum deposited, evaporated and extruded **polymer electrolyte** layers with thicknesses ranging from 2 to 50 μm. Application of these methods to ongoing electrochromic and battery work at the Pacific Northwest Laboratory was discussed.
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 76
ST polyethylene glycol deriv polyelectrolyte vacuum deposition; acrylic acid copolymer polyelectrolyte vacuum deposition; lithium salt polyelectrolyte vacuum deposition
IT Polyelectrolytes
(high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)
IT Electric conductivity and conduction
(ionic, ionic conductivity of high rate vacuum deposited acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)
IT Polymerization catalysts
(photochem., for high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)
IT Polymerization
(photochem., high rate vacuum deposition of acrylic acid-poly(ethylene

glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)

IT 21324-40-3, Lithium hexafluorophosphate 33454-82-9, Lithium trifluoromethane sulfonate
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)

IT **178438-32-9P**, Acrylic acid-polyethylene glycol diacrylate-polyethylene glycol monomethyl ether copolymer
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)

IT 29059-10-7
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator containing; high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)

IT 7473-98-5
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)

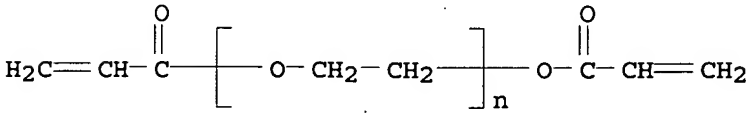
IT **178438-32-9P**, Acrylic acid-polyethylene glycol diacrylate-polyethylene glycol monomethyl ether copolymer
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(high rate vacuum deposition of acrylic acid-poly(ethylene glycol) diacrylate-poly(ethylene glycol) monomethyl ether **polymer electrolytes** with lithium salts)

RN 178438-32-9 HCAPLUS

CN 2-Propenoic acid, polymer with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) and α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

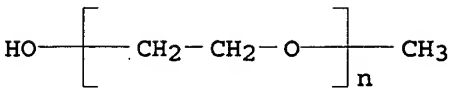
CM 1

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



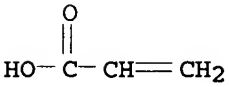
CM 2

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



CM 3

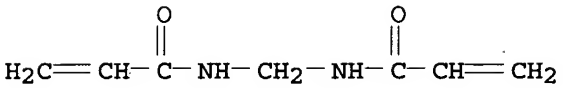
CRN 79-10-7
CMF C3 H4 O2



L65 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:1697 HCAPLUS
DN 124:177563
TI Improved water-absorbing acrylamide hydrogels with itaconic esters
AU Mendizabal, Eduardo; Espinoza, David; Castaneda, Armando; Katime, Issa A.; Velada, Jose L.
CS Universidad de Guadalajara, Guadalajara, Mex.
SO Annual Technical Conference - Society of Plastics Engineers (1995), 53rd(Vol. 2), 1960-3
CODEN: ACPED4; ISSN: 0272-5223
PB Society of Plastics Engineers
DT Journal
LA English
AB The copolymn. of acrylamide with 2-ethoxyethyl monoitaconate or Me monoitaconate in the presence of N,N'-methylenebis(acrylamide) produced hydrogels with an enhanced water absorption capacity. The effect of **copolymer** composition, amount of crosslinking agent, **electrolyte** presence, and pH of the solution on the water absorption rate and maximum degree of swelling was studied.
CC 37-3 (Plastics Manufacture and Processing)
ST acrylamide hydrogel water absorption; itaconic acid ester acrylamide hydrogel
IT Absorption
(of water; by acrylamide-alkyl monoitaconate-methylenebis(acrylamide) polymer hydrogels)
IT 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(absorption of; by acrylamide-alkyl itaconate-methylenebis(acrylamide) polymer hydrogels)
IT **174206-03-2P** 174206-04-3P, Acrylamide-methyl itaconate-N,N'-methylenebis(acrylamide) copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hydrogel; preparation and water absorption capacity of)
IT **174206-03-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hydrogel; preparation and water absorption capacity of)
RN 174206-03-2 HCAPLUS
CN Butanedioic acid, methylene-, mono(2-ethoxyethyl) ester, polymer with N,N'-methylenebis[2-propenamide] and 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 110-26-9
CMF C7 H10 N2 O2



CM 2

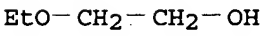
CRN 79-06-1
CMF C3 H5 N O

CM 3

CRN 174206-02-1
CMF C9 H14 O5
CCI IDS

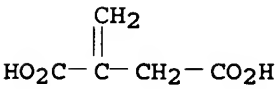
CM 4

CRN 110-80-5
CMF C4 H10 O2



CM 5

CRN 97-65-4
CMF C5 H6 O4

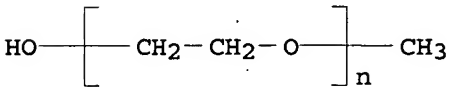


L65 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1989:142081 HCAPLUS
DN 110:142081
TI Forces between graft copolymers adsorbed to mica surfaces
AU Costello, B. A. de L.; Luckham, P. F.; Tadros, T. F.
CS Dep. Chem. Eng. Chem. Technol., Imp. Coll. Sci. Technol., London, SW7 2BY, UK
SO Colloids and Surfaces (1989), Volume Date 1988, 34(3), 301-6

CODEN: COSUD3; ISSN: 0166-6622
DT Journal
LA English
AB Forces between mica surfaces were determined in 10-2 M KNO3 solns. before and after adsorption of poly(Me methacrylate/methacrylic acid) graft copolymer with methoxy-capped polyoxyethylene side chains. Profiles were determined for both compression and decompression regimes. The force for uncoated mica commences at .apprx.25 nm and increases exponentially as separation (D) decreases. Surfaces coated with polymer exhibit similar behavior, but the force increases more rapidly with decreasing D.
CC 66-4 (Surface Chemistry and Colloids)
Section cross-reference(s): 36
ST adsorbed polymer mica surface force
IT Potential energy and function
(between mica **polymer**-covered surfaces immersed in aqueous **electrolyte**)
IT Adsorbed substances
(polymers, on mica surfaces, surface forces in aqueous electrolyte solution in
relation to)
IT Mica-group minerals, properties
RL: PRP (Properties)
(surface force between **polymer**-covered, immersed in aqueous **electrolyte**)
IT **119724-54-8**
RL: PRP (Properties)
(adsorbed, on mica, surface forces in relation to)
IT **119724-54-8**
RL: PRP (Properties)
(adsorbed, on mica, surface forces in relation to).
RN 119724-54-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with α-methyl-ω-hydroxypoly(oxy-1,2-ethanediyl) and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

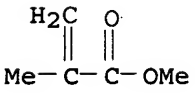
CM 1

CRN 9004-74-4
CMF (C2 H4 O)n C H4 O
CCI PMS



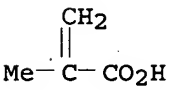
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



L65 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1988:187633 HCAPLUS
DN 108:187633
TI Studies on the prevention of calcium carbonate scale deposition by the addition of polyelectrolytes. II. Effect of molecular weight and chemical composition of polyelectrolyte on the inhibition of scale deposition
AU Okamoto, Masaru; Hayashi, Shiro
CS Kurita Cent. Lab., Kurita Water Ind. Ltd., Atsugi, 243-01, Japan
SO Nippon Kagaku Kaishi (1988), (3), 266-71
CODEN: NKAKB8; ISSN: 0369-4577
DT Journal
LA Japanese
AB The function of polyelectrolytes (polymers) to inhibit CaCO3 scale deposition was examined using solns. with various pHs and a number of polymers with different mol. wts. (M) and chemical compns. Polymers used were 9 polyacrylates having M of 600 .apprx. 25000, 5 acrylate-2-hydroxy-3-allyloxy-1-propanesulfonate copolymers with M of 3000, and 4 acrylate-3-allyloxy-1,2-propanediol copolymers with M of 3000. The inhibiting ability of polymers increases with their chelation affinity to Ca2+ ion but decreases when the chelation affinity excessively increases to facilitate the gelation. The maximum inhibition was obtained in a certain intermediate range of M for all polymers. The inhibition efficiency decreases with an increase of solution pH, probably because the degree of supersatn. of CaCO3 is higher with higher pHs. For all the polymers, a simple common relationship between the inhibiting ability of polymer for CaCO3 deposition and its chelation affinity is obtained. For all the gels, Ca2+ ion is contained in the gels and the mole ratio of Ca2+ ion and COO- group is always 1:2. This result indicates that the gelation results from the formation of zero-charge polymer complexes by the reaction with Ca2+ ion.
CC 36-7 (Physical Properties of Synthetic High Polymers)
ST polyacrylate calcium carbonate scale deposition; polyelectrolyte calcium carbonate scale deposition; acrylate copolymer calcium carbonate deposition; inhibition scale deposition calcium carbonate
IT **Gelation**
(of polyacrylate **electrolytes**, in presence of calcium carbonate, scale deposition prevention in relation to)
IT Polyelectrolytes
(polyacrylates, calcium carbonate scale deposition prevention by, effect of composition and mol. weight on)
IT Scale inhibitors
(polyacrylates, for calcium carbonates)
IT Coordination
(chelation, of calcium ions, by polyacrylate electrolytes, calcium carbonate scale prevention in relation to)
IT **85875-04-3 88794-99-4**, Sodium acrylate-sodium 2-hydroxy-3-allyloxy-1-propanesulfonate copolymer

RL: PRP (Properties)
(calcium carbonate scale deposition prevention by, effect of mol. weight and composition on)

IT 25549-84-2, Poly(sodium acrylate)
RL: PRP (Properties)
(calcium carbonate scale deposition prevention by, mol. weight effect on)

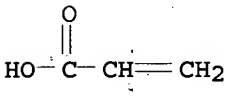
IT 471-34-1, uses and miscellaneous
RL: USES (Uses)
(scale formation by, prevention of, by polyacrylates)

IT **85875-04-3 88794-99-4**, Sodium acrylate-sodium 2-hydroxy-3-allyloxy-1-propanesulfonate copolymer
RL: PRP (Properties)
(calcium carbonate scale deposition prevention by, effect of mol. weight and composition on)

RN 85875-04-3 HCAPLUS
CN 2-Propenoic acid, sodium salt, polymer with 3-(2-propenyloxy)-1,2-propanediol (9CI) (CA INDEX NAME)

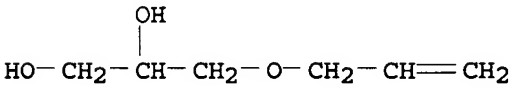
CM 1

CRN 7446-81-3
CMF C3 H4 O2 . Na



CM 2

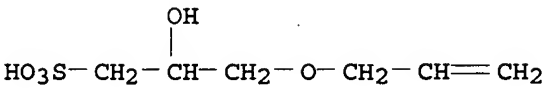
CRN 123-34-2
CMF C6 H12 O3



RN 88794-99-4 HCAPLUS
CN 2-Propenoic acid, sodium salt, polymer with 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

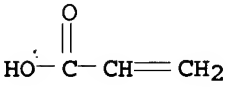
CM 1

CRN 52556-42-0
CMF C6 H12 O5 S . Na



CM 2

CRN 7446-81-3
CMF C3 H4 O2 . Na



L65 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:618256 HCAPLUS
DN 107:218256
TI Method for the electropolymerization of conductive polymers
IN Jasne, Stanley J.
PA Polaroid Corp., USA
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 229993	A2	19870729	EP 1986-117372	19861213
	EP 229993	A3	19880727		
	R: BE, DE, FR, GB, IT, NL, SE				
	CA 1311715	C	19921222	CA 1986-524389	19861203
	JP 62181328	A	19870808	JP 1986-302738	19861218
	US 4724053	A	19880209	US 1987-65180	19870619
PRAI	US 1985-811692	A	19851220		

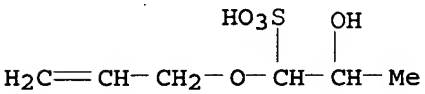
AB In the title process, giving polymers which are more easily recovered, monomers are electropolymd. in reaction solvents containing anionic **polymeric electrolytes** which associate with cationic **polymers** formed on the anode. An 11.92% polymer latex was prepared from Cors I (40% ethenesulfonate) 30, Me methacrylate 69, Et acrylate 142, and methacrylic acid 2.5 mL. A mixture of 500 g this latex, 100 mL H2O, 2.72 g C8H17SO3Na, and 12.8 mL pyrrole was subjected to a c.d. of 1 mA/cm2 for 16 h at room temperature to give a black film of polymer (elec. conductivity 0.35 and 1/Ω-cm wet and dry) on the anode. Casting a CH3CCl3 solution of this polymer gave a dry film with conductivity 0.38/Ω-cm.

IC ICM C08G085-00
ICS C08G061-12; C25B003-10; H01B001-12

CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 72
ST electrochem polymn polymer conductive; polypyrrole conductive polymn electrochem; elec conductor polymer manuf; polyelectrolyte anionic polymn electrochem; acrylic polymer polyelectrolyte; sulfonate copolymer polyelectrolyte
IT Electric conductors
(polypyrrole, manufacture of, by electrochem. polymerization)
IT Polyelectrolytes
(anionic, electrochem. polymerization of pyrrole in presence of, for easy polypyrrole recovery)
IT Polymerization
(electrochem., of pyrrole, in presence of anionic polyelectrolytes for easy polypyrrole recovery)
IT 30604-81-0P, Polypyrrole
RL: PREP (Preparation)
(elec. conductive, manufacture of, by electrochem. polymerization in presence of
anionic polyelectrolytes for easy recovery)
IT **100655-20-7** 111519-37-0, Ethyl acrylate-methacrylic acid-methyl methacrylate-2-sulfoethyl methacrylate copolymer
RL: PROC (Process)
(electrochem. polymerization of pyrrole in presence of, for easy polypyrrole recovery)
IT **100655-20-7**
RL: PROC (Process)
(electrochem. polymerization of pyrrole in presence of, for easy polypyrrole recovery)
RN 100655-20-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, 2-hydroxy-1-(2-propenyloxy)-1-propanesulfonic acid monosodium salt and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

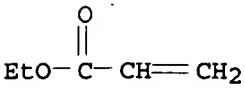
CM 1

CRN 143187-46-6
CMF C6 H12 O5 S . Na



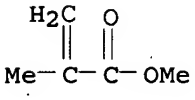
CM 2

CRN 140-88-5
CMF C5 H8 O2



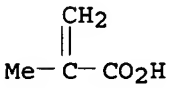
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2



L65 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1983:166945 HCAPLUS
DN 98:166945
TI Crosslinked copolymers swellable in water and their use as absorbent material for aqueous body fluids, such as urine and other electrolyte-containing aqueous fluids
IN Chmelir, Miroslav; Dahman, Kurt; Tuerk, Wolfgang
PA Chemische Fabrik Stockhausen G.m.b.H., Fed. Rep. Ger.
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 68189	A1	19830105	EP 1982-104996	19820608
	EP 68189	B1	19841003		
	R: BE, CH, DE, FR, GB, IT, LI, SE				
	DE 3124008	A1	19830127	DE 1981-3124008	19810619
	JP 58002312	A	19830107	JP 1982-105264	19820618
	JP 03044088	B	19910704		
	JP 03176065	A	19910731	JP 1990-263959	19901003
	JP 04071926	B	19921117		
PRAI	DE 1981-3124008	A	19810619		

OS MARPAT 98:166945
AB Water-swelling copolymers contain 5-30% 2-acrylamido-2-methylpropanesulfonic acid or its alkali or NH4 salts, 70-95% acrylic or methacrylic acid or their salts and(or) acrylamide and(or) vinylpyrrolidone, and 0.01-2% of a bi- or polyfunctional crosslinker. The **copolymers** absorb body fluids containing **electrolytes.** Thus, acrylic acid 128, 2-acrylamido-2-methylpropanesulfonic acid 246, and H2O 965 g were adjusted to pH 4.1 with NH4HCO3, mixed with 0.37 g N,N'-methylenebisacrylamide, heated to 50°, and polymerized with 1.2 g azobisamidopropane-2HCl catalyst. The polymer gel was chopped, dried,

powdered, and mixed with 0.5% Aerosil 200. The crosslinked copolymer absorbed 58 mL artificial urine/g, and 43 mL with a loading of 10 g/cm2.

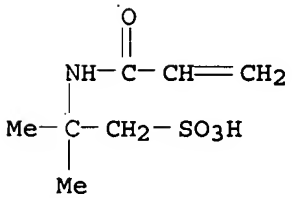
IC A61L015-00; C08F220-00
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 37
ST acrylic polymer body fluid absorbent; urine absorbent acrylic polymer
IT Surgical dressings and goods
(absorbent, acrylic polymers as, for body fluids)
IT Body fluid
Urine
Waters, ocean
(absorbents for, acrylic polymers as)
IT Absorbents
(acrylic polymers, for body fluids)
IT Acrylic polymers, biological studies
RL: BIOL (Biological study)
(body fluid absorbents)
IT 85481-57-8P 85481-58-9P 85481-60-3P **85481-62-5P**
85481-64-7P 85481-65-8P 85481-67-0P 85481-68-1P 85481-70-5P
RL: PREP (Preparation)
(preparation of, as body fluid absorbent)
IT **85481-62-5P**
RL: PREP (Preparation)
(preparation of, as body fluid absorbent)
RN 85481-62-5 HCAPLUS
CN 2-Propenoic acid, polymer with 2,2-bis[(2-propenyloxy)methyl]-1-butanol and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 85481-61-4
CMF (C12 H22 O3 . C7 H13 N O4 S . C3 H4 O2)x
CCI PMS

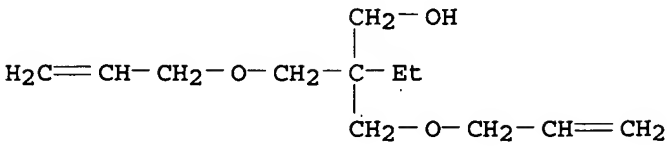
CM 2

CRN 15214-89-8
CMF C7 H13 N O4 S



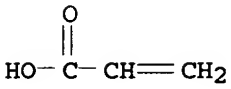
CM 3

CRN 682-09-7
CMF C12 H22 O3



CM 4

CRN 79-10-7
CMF C3 H4 O2



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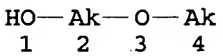
L51 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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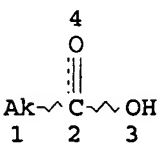
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L52 STR

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L53 STR



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DEFAULT MLEVEL IS ATOM
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   4

STEREO ATTRIBUTES: NONE
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L59        1510 SEA FILE=HCAPLUS ABB=ON  L57
L60        5138 SEA FILE=HCAPLUS ABB=ON  GEL?(5A)ELECTROLYT?
L61           8 SEA FILE=HCAPLUS ABB=ON  L59 AND L60
L63       28488 SEA FILE=HCAPLUS ABB=ON  ?POLYMER?(5A)ELECTROLYT?
L64          15 SEA FILE=HCAPLUS ABB=ON  L59 AND L63
L65          18 SEA FILE=HCAPLUS ABB=ON  L61 OR L64
L67       14050 SEA FILE=REGISTRY ABB=ON  74-85-1/CRN
L68        6784 SEA FILE=REGISTRY ABB=ON  115-07-1/CRN
L69          43 SEA FILE=REGISTRY ABB=ON  L57 AND (L67 OR L68)
L70          21 SEA FILE=HCAPLUS ABB=ON  L69
L71           5 SEA FILE=HCAPLUS ABB=ON  L70 AND ELECTROLYT?
L72           1 SEA FILE=HCAPLUS ABB=ON  (L65 OR L71) NOT L65


=> d l72 bib abs ind hitstr

L72  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2007 ACS on STN
AN   1999:359775  HCAPLUS
DN   131:7534
TI   A proton exchange membrane fuel cell power system
IN   Fuglevand, William A.; Bayyuk, Shiblihanna I.; Lloyd, Greg A.; Devries,
     Peter D.; Lott, David R.; Scartozzi, John P.; Somers, Gregory M.; Stokes,
     Ronald G.
PA   Avista Labs, USA
SO   PCT Int. Appl., 145 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 5
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   WO 9927599           A1     19990603    WO 1998-US21769         19981015
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE,
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             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, UA, UG, UZ, VN, YU, ZW
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             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6030718            A      20000229    US 1997-979853          19971120
     CA 2300846            A1     19990603    CA 1998-2300846         19981015
     AU 9910889            A      19990615    AU 1999-10889           19981015
     AU 741975             B2     20011213
     BR 9814617            A      20001003    BR 1998-14617           19981015
     EP 1040529            A1     20001004    EP 1998-953546          19981015
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
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	JP 2001524740	T	20011204	JP 2000-522640	19981015
	JP 3744794	B2	20060215		
	US 6218035	B1	20010417	US 1999-470321	19991221
	JP 2005135926	A	20050526	JP 2005-1539	20050106
	JP 2005142167	A	20050602	JP 2005-1518	20050106
PRAI	US 1997-979853	A	19971120		
	JP 2000-522640	A3	19981015		
	WO 1998-US21769	W	19981015		

AB A proton exchange membrane fuel cell power system (for producing elec. power) includes a plurality of discrete fuel cell modules having at least two membrane electrode diffusion assemblies, each of the membrane electrode diffusion assemblies having opposite anode and cathode sides; a pair of current collectors individually disposed in juxtaposed ohmic elec. contact with opposite sides of the membrane electrode diffusion assemblies; and individual force application assemblies applying a given force to the pair of current collectors and the individual membrane electrode diffusion assemblies. The proton exchange fuel cell power system also includes an enclosure mounting a plurality of subracks which receive the discrete fuel cell modules. Addnl., a control system is disclosed which optimizes the performance parameters of the discrete proton exchange fuel cell modules.

IC ICM H01M008-10
ICS H01M008-24

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

ST proton exchange membrane fuel cell power

IT Waxes
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; proton exchange membrane fuel cell power system)

IT Copying paper
(carbon paper; proton exchange membrane fuel cell power system)

IT Carbon fibers, uses
RL: DEV (Device component use); USES (Uses)
(cloth; proton exchange membrane fuel cell power system)

IT Power
(generation; proton exchange membrane fuel cell power system)

IT Fuel cell **electrolytes**
Fuel cells
(proton exchange membrane fuel cell power system)

IT Acrylic polymers, uses
Polymers, uses
RL: DEV (Device component use); USES (Uses)
(proton exchange membrane fuel cell power system)

IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; proton exchange membrane fuel cell power system)

IT 7440-02-0, Nickel, uses 7440-50-8, Copper, uses 12597-68-1, Stainless steel, uses
RL: DEV (Device component use); USES (Uses)
(current collector; proton exchange membrane fuel cell power system)

IT 225644-20-2, 2-Propenoic acid, 2-methyl-, 3-sulfopropyl ester-polypropylene glycol monomethacrylate-2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester-2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester-1,2-Dimethoxyethane-ethylene graft copolymer 225644-21-3, 3-Sulfopropyl methacrylate-polypropylene glycol monomethacrylate copolymer 225644-22-4, 3-Sulfopropyl methacrylate-polyethylene glycol monomethacrylate copolymer 225644-63-3, 3-Sulfopropyl methacrylate-hydroxypropyl methacrylate copolymer **225644-64-4**, 3-Allyloxy-2-hydroxy-1-propanesulfonic acid-polypropylene glycol monomethacrylate-hydroxypropyl

methacrylate-diethylene glycol monomethacrylate-ethylene graft copolymer **225644-65-5 225644-66-6**
RL: DEV (Device component use); USES (Uses)
(proton exchange membrane fuel cell power system)

IT 7440-04-2, Osmium, uses 7440-05-3, Palladium, uses 7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-18-8, Ruthenium, uses 7440-74-6, Indium, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(proton exchange membrane fuel cell power system)

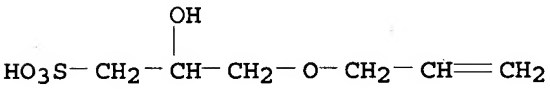
IT **225644-64-4**, 3-Allyloxy-2-hydroxy-1-propanesulfonic acid-polypropylene glycol monomethacrylate-hydroxypropyl methacrylate-diethylene glycol monomethacrylate-ethylene graft copolymer **225644-65-5 225644-66-6**
RL: DEV (Device component use); USES (Uses)
(proton exchange membrane fuel cell power system)

RN 225644-64-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester, polymer with ethene, 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and 1,2-propanediol mono(2-methyl-2-propenoate), graft (9CI) (CA INDEX NAME)

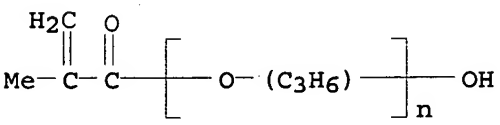
CM 1

CRN 94928-31-1
CMF C6 H12 O5 S



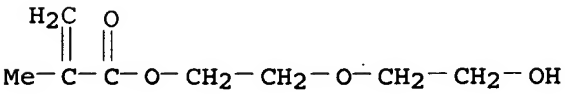
CM 2

CRN 39420-45-6
CMF (C3 H6 O)n C4 H6 O2
CCI IDS, PMS



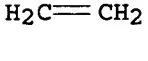
CM 3

CRN 2351-43-1
CMF C8 H14 O4



CM 4

CRN 74-85-1
CMF C2 H4

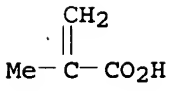


CM 5

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

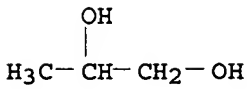
CM 6

CRN 79-41-4
CMF C4 H6 O2



CM 7

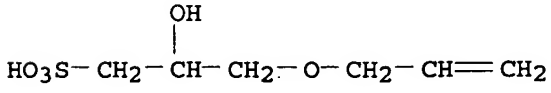
CRN 57-55-6
CMF C3 H8 O2



RN 225644-65-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, diester with 1,2,3-propanetriol, polymer with 1,1'-[1,2-ethanediylbis(oxy)]bis[ethene], ethene, 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid, α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl) and 1,2-propanediol mono(2-methyl-2-propenoate), graft (9CI) (CA INDEX NAME)

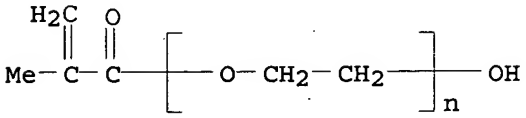
CM 1

CRN 94928-31-1
CMF C6 H12 O5 S



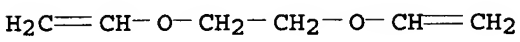
CM 2

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



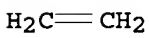
CM 3

CRN 764-78-3
CMF C6 H10 O2



CM 4

CRN 74-85-1
CMF C2 H4



CM 5

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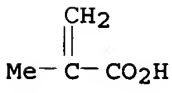
CMF C11 H16 O5
CCI IDS

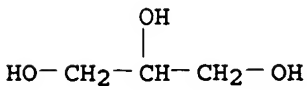
CM 6

CRN 79-41-4
CMF C4 H6 O2



CM 7

CRN 56-81-5
CMF C3 H8 O3

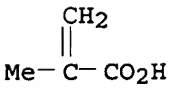


CM 8

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

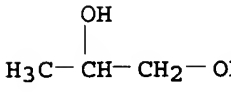
CM 9

CRN 79-41-4
CMF C4 H6 O2



CM 10

CRN 57-55-6
CMF C3 H8 O2



RN 225644-66-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, polymer with bis(2-propenyloxy)acetic acid, 1,1'-[1,2-ethanediylbis(oxy)]bis[ethene], ethene, 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid and α-(2-methyl-1-oxo-2-propenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

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CRN 161823-92-3
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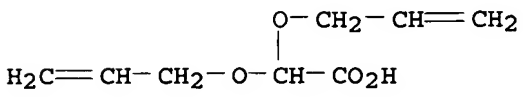
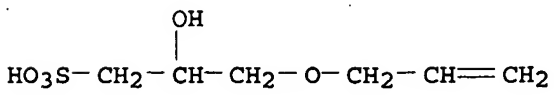


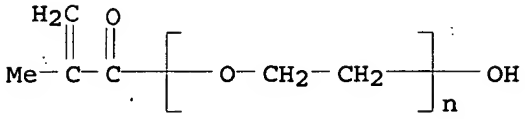
CM 2

CRN 94928-31-1
CMF C6 H12 O5 S



CM 3

CRN 25736-86-1
CMF (C2 H4 O)n C4 H6 O2
CCI PMS



CM 4

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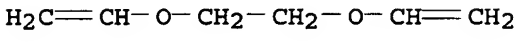


CM 5

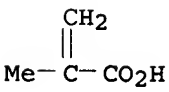
CRN 74-85-1
CMF C2 H4

CM 6

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

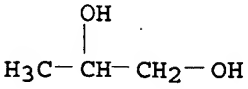
CM 7

CRN 79-41-4
CMF C4 H6 O2



CM 8

CRN 57-55-6
CMF C3 H8 O2



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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